

**WHAT IS CLAIMED IS:**

1. A disk recording and/or reproducing apparatus comprising:

a turn table on which a disk storage unit for storing a disk shaped recording medium to be vertically placed is arranged in plurality in a circumferential direction;

a disk drive unit disposed in a center hole provided at the center of the turn table, the disk drive unit mounting the recording medium to record and/or reproduce an information signal;

disk carrying means for carrying the recording medium between the disk drive unit and the turn table; and

control device for controlling the input and output of the turn table, the disk drive unit, and the disk carrying means, wherein the control device controls the turn table and disk carrying means so as to judge whether or not the recording medium is stored in the disk storage unit, judge an information recording face of the recording medium removed from the disk storage unit, and mount the recording medium intact on the disk drive unit or invert the recording medium based on the judgment result, thereby remounting the medium on the disk drive unit.

2. A disk recording and/or reproducing apparatus as claimed in claim 1, wherein there are provided: operating means operated to specify a position of the disk storage unit for the control device in order to select the arbitrary recording medium; and detecting means for detecting whether or not the recording medium is stored with respect to the disk storage unit specified by the operating means.

3. A disk recording and/or reproducing apparatus as claimed in claim 2, wherein, in the case where the recording medium is instructed to be inverted by the operating means, there is provided a nonvolatile storage unit for storing storage position information indicative of a storage position of the recording medium in the turn table and judgment result information on the information recording face of the recording medium, and the control device judges necessity of inversion of the recording medium based on the storage position information and judgment result information read out from the storage unit.

4. A disk recording and/or reproducing apparatus as claimed in claim 1, wherein the control device rewrites the storage position information every time the storage position of the storage medium changes.

5. A disk recording and/or reproducing apparatus as claimed in claim 1, wherein there is provided display means for displaying a video image concerning an inverting operation of the recording medium in progress.

6. A disk recording and/or reproducing apparatus as claimed in claim 5, wherein the display means is provided so as to display a video image concerning a case in which there is no necessity of inverting the recording medium.

7. A disk recording and/or reproducing apparatus as claimed in claim 1, wherein the control device handles a disk shaped recording medium of

single sided recording system.

8. A disk recording and/or reproducing apparatus as claimed in claim 7, wherein, in the case of handling the recording medium of the single sided recording system, the control device mounts the recording medium removed from the disk storage unit on a disk drive unit, detects an information signal recorded at a predetermined position of the recording medium, and judges whether or not the disk face is an information recording face based on detection of the information signal.

9. A disk recording and/or reproducing apparatus as claimed in claim 7, wherein, in the case where the information recording face of the recording medium of the single sided recording medium is mounted to be oriented opposite to the disk drive unit, the control device ejects the recording medium to a turn table, inverts the turn table, and then, mounts the information recording face of the recording medium toward the disk drive unit.

10. A disk recording and/or reproducing apparatus as claimed in claim 1, wherein the control device handles a disk shaped recording medium of double sided recording system.

11. A disk recording and/or reproducing apparatus as claimed in claim 10, wherein, in the case of handling the recording medium of the double sided recording medium, the control device mounts the recording medium

removed from the disk storage unit on a disk drive unit, detects an information signal recorded at a predetermined position of the recording medium, judges whether or not the disk face is an information recording face based on detection of the information signal, and judges whether both disk faces are information recording faces, or only a single disk face is an information recording face, or both disk faces are non-information recording faces.

12. A disk recording and/or reproducing apparatus as claimed in claim 10, wherein, in the case where reproduction sequence information is registered in advance with respect to the recording medium of the double sided recording system, the control device mounts the recording medium removed from the disk storage unit on a disk drive unit, detects the reproduction sequence information from the information signal recorded at the predetermined position of the recording medium, and judges whether the disk face is an information recording face of a first reproduction sequence or an information recording face of a second reproduction sequence based on detection of the reproduction sequence information.

13. A disk recording and/or reproducing apparatus as claimed in claim 10, wherein, in the case where the first information recording face of the recording medium of the double sided recording system is mounted to be oriented opposite to a disk drive unit, the control device ejects the recording medium to a turn table, inverts the turn table, and then, mounts

the first information recording face of the recording medium toward the disk drive unit.

14. A method of controlling a disk recording and/or reproducing apparatus that comprises: at least a turn table on which a disk storage unit for storing a plurality of disk shaped recording medium to be vertically placed are arranged in a circumferential direction; a disk drive unit disposed in a center hole provided at the center of the turn table, the disk drive unit mounting the recording medium to record and/or reproduce an information signal; and disk carrying means for carrying the recording medium between the disk drive unit and the turn table, the control method comprising the steps of:

detecting whether or not a recording medium is stored in the disk storage unit;

mounting the recording medium from the disk storage unit at which the presence of storage has been detected, and judging an information recording face of the recording medium;

controlling the turn table and disk carrying means so as to mount the recording medium intact on the disk drive unit based on the judgment result or invert the recording medium to remount the medium on the disk drive unit.

15. A method of controlling a disk recording and/or reproducing apparatus as claimed in claim 14, wherein, when a position of the disk storage unit is specified so as to select the arbitrary recording medium, it

is detected whether or not the recording medium is stored with respect to the specified disk storage unit.

**16.** A method of controlling a disk recording and/or reproducing apparatus as claimed in claim 14, wherein storage position information indicative of the storage position of the recording medium in the turn table and judgment result information on the information recording face of the recording medium are stored.

**17.** A method of controlling a disk recording and/or reproducing apparatus as claimed in claim 14, wherein, in the case where the recording medium is instructed to be inverted, necessity of inverting the recording medium is judged based on the storage position information and judgment result information that have been stored in advance.

**18.** A method of controlling a disk recording and/or reproducing apparatus as claimed in claim 17, wherein the storage position information is rewritten every time the storage position of the recording medium changes.

**19.** A method of controlling a disk recording and/or reproducing apparatus as claimed in claim 14, wherein a video image concerning an inverting operation of the recording medium in progress is displayed.

**20.** A method of controlling a disk recording and/or reproducing

apparatus as claimed in claim 14, wherein a video image concerning a case in which there is no necessity of inverting the recording medium is displayed.

**21.** A method of controlling a disk recording and/or reproducing apparatus as claimed in claim 14, wherein the disk shaped recording medium of single sided recording system is handled.

**22.** A method of controlling a disk recording and/or reproducing apparatus as claimed in claim 21, wherein, in the case of handling a recording medium of the single sided recording system, the recording medium is mounted on a disk drive unit after removed from the disk storage unit, an information signal recorded at a predetermined position of the recording medium is detected, and it is judged whether or not the disk face is an information recording face based on detection of the information signal.

**23.** A method of controlling a disk recording and/or reproducing apparatus as claimed in claim 21, wherein, in the case where an information recording face of a recording medium of the single sided recording system is mounted to be oriented opposite to a disk drive unit, the recording medium is ejected to a turn table, the turn table is inverted, and then, the information recording face of the recording medium is mounted toward the disk drive unit.

24. A method of controlling a disk recording and/or reproducing apparatus as claimed in claim 14, wherein the disk shaped recording medium of double sided recording system is handled.

25. A method of controlling a disk recording and/or reproducing apparatus as claimed in claim 24, wherein, in the case of handling a recording medium of the double sided recording system, the recording medium removed from the disk storage unit is mounted on a disk drive unit, an information signal recorded at a predetermined position of the recording medium is detected, it is judged whether or not the disk face is an information recording face based on detection of the information signal, and it is judged whether both disk faces are information recording faces, or only a single disk face is an information recording face, or both disk faces are non-information recording faces.

26. A method of controlling a disk recording and/or reproducing apparatus as claimed in claim 24, wherein, in the case where reproduction sequence information is registered in advance with respect to a recording medium of the double sided recording system, the recording medium removed from the disk storage unit is mounted on a disk drive unit, reproduction sequence information is detected from an information signal recorded at a predetermined position of the recording medium, and it is judged whether the disk face is an information recording face of a first reproduction sequence or an information recording face of a second reproduction sequence based on detection of the reproduction sequence



information.

27. A method of controlling a disk recording and/or reproducing apparatus as claimed in claim 24, wherein, in the case where a first information recording face of a recording medium of the double sided recording system is mounted to be oriented opposite to a disk drive unit, the recording medium is ejected to a turn table, the turn table is inverted, and then, the first information recording face of the recording medium is mounted toward the disk drive unit.